Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

NOTES.

The frontispiece of *Popular Astronomy* for October, 1920, is a group picture of members and visitors at the Northampton and South Hadley meeting of the American Astronomical Society, September 1–4, 1920. Among those in the group are the following members of the Mathematical Association: E. W. BROWN, W. J. HUSSEY, H. R. KINGSTON, J. A. MILLER, E. D. ROE, JR., L. SILBERSTEIN, A. B. TURNER, and R. E. WILSON.

The fourteenth volume of the remarkable edition of the *Oeuvres Complètes* of Christian Huygens appeared in 1920 (Nijhoff, The Hague, 5 + 557 pages). It contains his writings on the calculus of probabilities, and his work in pure mathematics, 1655–1666.

The geometrical proof of the law of tangents signed by Alex. D. Russell on page 58 of the last volume of the *Proceedings of the Edinburgh Mathematical Society* (published November, 1920) is identical with that given in this MONTHLY, February, 1920, by Mr. CHENEY.

We are glad to note that the editors of the second volume of *Journal of the Mathematical Association of Japan for Secondary Education* [compare *1920*, 25, 45] find in our MONTHLY considerable material of interest for their constituents. On pages 1–7 of the issue for March, 1920, there is an abridged translation into Japanese of Professor R. B. MCCLENON's "Leonardo and his Liber Quadratorum" [*1919*, 1–8]; in the issue for June, pages 85–107, 118, there are practically complete translations of Professor HUNTINGTON's presidential address [*1919*, 421–435], and of Mr. W. F. CHENEY's "New proof of the law of tangents" [*1920*, 53–54].

We have referred in earlier issues to the publication of six parts of *Materialien für eine wissenschaftliche Biographie von Gauss*, edited by F. Klein, M. Brendel and L. Schlesinger [*1919*, 160–161, 358]. Heft 7 (1919) by M. Brendel, *Ueber die astronomischen Arbeiten von Gauss*, contained the first part of "Theoretische Astronomie." Heft 8 (59 pages) by A. Fraenkel on *Zahlbegriff und Algebra bei Gauss* contains the first part "Mit einem Ahang von A. Ostrowski . . . Zum ersten und vierten Gausschen Beweise des Fundamentalsatzes der Algebra." This was published as "1920 Beiheft" to *Nachrichten von der Königlichen Gesellschaft der Wissenschaften zu Göttingen, Mathematisch-physikalische Klasse.*

In *Revista Mathemática Hispano-Americana*, June, 1920, page 192, there is a note by G. A. MILLER on an incorrect definition of "simple group." The content of this note was contained in an article by Professor Miller published in this MONTHLY, *1919*, 290–291. The September number of the *Revista* has the following query by D. E. Smith on page 212: "In the arithmetic of Texada (1546) the sign U appears as abbreviation of the word thousand. Thus for example

c. lx. U462 q̊s. . ix U621

represents the number 160,462,009,621.[1] What is the origin of the symbol U, probably a heritage from the Arabs?" Compare F. Cajori, "On the Spanish symbol U for thousands," *Bibliotheca Mathematica,* May, 1912, volume 12, pp. 133–144.

---

[1] Cf. D. E. Smith, *Rara Arithmetica*, Boston and London, 1908, p. 242.—EDITOR.

The following extracts from *Sylvanus Phillips Thompson, D.Sc., LL.D., F.R.S. His Life and Letters* by Jane S. Thompson [his wife] and Helen G. Thompson [his daughter] (London, T. Fisher Unwin, 1920) will give an idea of the style of treatment of the subject throughout the volume:

"In connection with his work on alternating electric currents, Thompson developed a lively practical interest in that branch of mathematics known as Harmonic Analysis. In 1904 he read a paper to the Physical Society which showed his familiarity with many of the various attempts of mathematicians to simplify the methods of this analysis, and he described in his paper, and later in *The Electrician* for the benefit of technical workers, 'A Rapid Approximate Method of Harmonic Analysis.' He continued to work at this for some years, and in 1911 presented to the Physical Society a second paper on what he called a 'New Method of Approximate Harmonic Analysis.' This method was also described in a paper read before a Swedish Society a few months later, and printed in the *Arkiv för Matematik, Astronomi och Fysik* of Upsala and Stockholm. The method is described in eight short pages, quite as obscure as Chinese to the lay mathematical mind, but evidently appreciated by those with sufficient training to follow its argument; and in June, 1914, he was requested to allow his method, with its scheduled forms, to be incorporated in the Handbook of an exhibition of forms for facilitating Harmonic Analysis, at the Napier Tercentenary Celebrations held at Edinburgh that summer. . . . Dr. Alexander Russell . . . wrote thus of Thompson's work in this field:[1]

"'He loved music and had an accurate musical ear. The valuable paper which he read to the Physical Society in 1910 on "Hysteresis Loops, and Lissajous' Figures" was a happy mixture of magnetism, sound, and mathematical theorems. In solving mathematical problems and inventing new mathematical theorems he took the keenest delight. He did most excellent work, for instance, in simplifying Runge's method of practical harmonic analysis. He was dissatisfied, however, with the accuracy obtainable by this method. He then invented a series method of harmonic analysis. The writer remembers how pleased he was when he first discovered it, and with what mutual pleasure we discussed it. He greatly appreciated the lectures which Dr. Kennelly of Harvard gave at the Institution some years ago. In proposing a vote of thanks to him he expressed himself, as usual, most happily. He said that he felt constrained to exclaim, "Great is the Hyperbolic Angle, and Kennelly is its Prophet!"'

"Thompson took a keen interest in hyperbolic trigonometry, and contemplated writing a little treatise on the subject, which was to have been a companion volume to the *Calculus made Easy*. He and his old student, Mr. Maurice Gheury, had already partly planned the work in 1914,[2] but like much else it was cut short by the war." [Pages 105–107.]

"In order to help his students to get a grasp of the Integral Calculus, a branch of mathematics absolutely essential for the training of a mechanical or electrical engineer, he invented a new way of presenting the subject which was used for many years in the college. At last, in 1910, he published this in the form of a small volume entitled *Calculus made Easy*, by 'F. R. S.' It was brought out by Macmillan's, and the secret of its authorship was faithfully kept until after the death of the author. It was written in a very amusing colloquial style, which raised the ire of some of the serious teachers of mathematics who objected to the subject being treated as a joke, but its tremendous success showed that it met the need of students. In the Prologue he says:

"'Being myself a remarkably stupid fellow, I have had to unteach myself the difficulties, and now beg to present to my fellow fools the parts that are not hard. Master these thoroughly, and the rest will follow. What one fool can do, another can.'

"In the Epilogue he says:

"'There are amongst young engineers a number on whose ears the adage that, what one fool can do another can, may fall with a familiar sound. They are earnestly requested not to give the author away, nor to tell the mathematicians what a fool he really is.'

---

[1] *Journal of Inst. E. E.*, vol. 55, p. 550.

[2] Such a work, *Exponentials made Easy*, was published by Mr. Gheury in 1920.

“The students who knew the secret kept it carefully. . . .

“Sir Oliver Lodge wrote:

“‘My dear Silvanus,

“‘You know that book *Easy Lessons in the Calculus*, I have concluded that the book is by John Perry, but recently I have heard it attributed to yourself. I do not in the least think that that is true, but perhaps you would not mind sending me a postcard either of denial or acceptance, for evidently the anonymity is not carefully preserved.

“‘Yours ever,
“‘Oliver Lodge.’

“After the death of the author the book was published in his name, and is still being largely used, both in this country and in America.” [Pages 138–140.]

ARTICLES IN CURRENT PERIODICALS.

American Machinist, New York, volume 53, August 26, 1920: “Teaching machine shop mathematics” by G. Heald, 421.

Annals of Mathematics, second series, volume 22, no. 1, September, 1920: “On multiform functions defined by differential equations of the first order” by P. Boutroux, 1–10; “Hermitian metrics” by J. L. Coolidge, 11–28; “On the expansion of certain analytic functions in series” by R. D. Carmichael, 29–34; “Notes on the cyclic quadrilateral” by F. V. Morley, 35–42; “Note on the preceding paper” by F. Morley, 43; “Qualitative properties of the ballistic trajectory” by T. H. Gronwall, 44–64.

Athenæum. London, October 22, 1920: “James Clerk Maxwell” by S., 557–558 [First paragraph: “The place that will be held by James Clerk Maxwell in the history of physics is not easy to determine. That it will be a very high place is obvious, that he will emerge as the greatest of the physicists of the nineteenth century is probable, but the student of Maxwell must feel that this kind of ranking is somehow irrelevant, or likely to become irrelevant, to his peculiar effect. The unique impression produced by Maxwell's achievement is not adequately described by being referred to his “originality.” There are different ways of being original; it is not a sufficiently penetrating term. A number of Maxwell's scientific contemporaries were original men, but one is conscious that they had more in common with one another than Maxwell had with them. An exception from this statement is found in W. K. Clifford, who, as has often been remarked, had a genius curiously akin to Maxwell's. Both men were exceptionally *independent* thinkers, both men resisted the attraction of the high road; both men, if the term may be permitted, had a personal and unique angle of approach to the problems of their time. But this, though true, is not a sufficient description. It is important that in neither case do we feel their individual quality to be an eccentricity; their work has a power, and, still more, a comprehensive serenity, which is never the product of mere oddity—the oddity, for instance, of a Samuel Butler. If we try to get closer to this elusive and important characteristic we do not meet with much success; but we may suggest that the ideas of these men have the effect of springing from an unusually rich, subtle and comprehensive *context*. The fundamental ideas of the science of their time were subtly modified by reception into these minds; they were connected in a personal and unusual web of implications.”]

Bulletin des Sciences Mathématiques, volume 55, July, 1920: Review by A. Buhl of C. I. Lewis's, *A Survey of Symbolic Logic* (Berkeley, 1918), 154–155.

Chimie et Industrie, Paris, volume 3, May, 1920: “De l'influence des spéculations mathématiques sur les progrès de la chimie” by H. LeChatelier, 555–565 [translated into English, *Scientific American Monthly*, volume 2, November, 1920, pp. 229–234].—Volume 4, August, 1920: “A propos de la formation des chimistes” by E. Grandmougin, 252–254.

Engineering, London, volume 109, June 11, 1920: “Mathematics for the engineer,” 795–796.

L'Enseignement Mathématique, volume 21, no. 2, September, 1920: “Charles Ange Laisant, 1841–1920” (portrait frontispiece) by A. Buhl, 73–80; “Extension du problème des triangles héroniens” by C. A. Laisant, 80–84; “Sur l'élimination algébrique” by C. Riquier, 85–105; “Table de caractéristiques de base 30030 donnant, en un seul coup d'œil, les facteurs premiers des nombres premiers avec 30030 et inférieurs a 901800900” by E. Lebon, 105–116 [“Extrait de l'introduction”]; “Sur la théorie des vecteurs, essai de calcul symbolique” by T. Rousseau, 117–131; “Calcul des racines reélles d'une équation algébrique ou transcendante par